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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/766,526

01/29/2004

Albert Johannes Maria Jansen

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909 7590 10/03/2007
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EXAMINER

FULLER, RODNEY EVAN

ART UNIT

PAPER NUMBER

2862

MAIL DATE

DELIVERY MODE

10/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/766,526

Applicant(s)

JANSEN ET AL.

Examiner

Rodney E. Fuller

Art Unit

2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Rodney Fuller
Primary Examiner

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. In response to Applicant's Amendment, dated July 13, 2007, the examiner acknowledges the amendments to claims 1, 5, 6, 8, 9, 17, 18, 26, 27 and 31. Claims 1-31 are pending.
2. The examiner acknowledges the correction to the claim objections set forth in the Office Action mailed March 13, 2007.
3. Regarding the 35 U.S.C. 102(e) rejection of claims 1-31 as being anticipated by Fujimaki (US 2005/0151947), the examiner has considered applicant's arguments and withdraws the rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Suwa (US 6,191,429).

Regarding claim 1, 11-13, 26 and 27, Suwa discloses "an illumination system (Fig. 1, ref.# 10) configured to provide a beam of radiation (Fig. 1, beam along axis AX); a mask table (Fig. 1, ref.# 13) configured to hold a mask (Fig. 1, ref.# R), the mask configured to impart the beam with a pattern (Fig. 2, ref.# Pa), said mask table being

configured to receive said mask at at least two positions displaced (Fig. 2, note arrow of movement of reticle R) in a first direction so that different parts of the pattern on the mask can be brought within an exposure field (Fig. 2, ref.# 1A) when the mask is in different ones of said positions; a substrate table (Fig. 1, ref.# 34) configured to hold a substrate (Fig. 1, ref.# W); and a projection system (Fig. 1, ref.# PL) configured to project the patterned beam onto a target portion (Fig. 2, ref.# SI) of the substrate, wherein said exposure field (Fig. 2, ref.# 1A) of said projection system is smaller than said mask (Fig. 2, ref.# R, Pa) in at least the first direction.”

Regarding claims 2, 14 and 28, Suwa discloses “a mask handling device (Fig. 1, ref.# 14) configured to place said mask on said mask table selectively in different ones of said positions (Fig. 2, arrow of movement of reticle R indicates different positions).”

Regarding claims 3, 15 and 29, Suwa discloses “wherein the distance between the center of said mask when in the first position and the center of said mask when in the second position is substantially equal to the length of said exposure field in said first direction.” (Figures 1 and 2 show wherein the mask is movable such that the total surface of the reticle can slide past the optical axis of the projection system. Thus, there are two positions wherein the distance between is substantially equal to the length of the exposure field in the scan direction.)

Regarding claims 4, 16 and 30, Suwa discloses “wherein said distance is slightly less than said length to provide an overlap of the exposures necessary to image the whole pattern.” (Figures 1 and 2 show wherein the mask is movable such that the total

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surface of the reticle can slide past the optical axis of the projection system. Thus, there are two positions wherein the distance is slightly less than the length.)

Regarding claims 5, 17 and 31, Suwa discloses "wherein said mask table is configured to accommodate the mask in N positions to allow imaging of a pattern up to N times the length of the exposure field in the first direction, where N is in the range of from 2 to 5." (Figures 1 and 2 show wherein the mask is movable such that the total surface of the reticle can slide past the optical axis of the projection system.)

Regarding claims 6 and 18, Suwa discloses "wherein said mask table is configured to accommodate the mask at a large number or continuum of positions in the first direction." (Figures 1 and 2 show wherein the mask is movable such that the total surface of the reticle can slide past the optical axis of the projection system.)

Regarding claims 7, 10, 19 and 22, Suwa discloses "wherein said mask table comprises a mask clamp to clamp the mask along its edges parallel to the first direction." (Column 8, lines 29-30, teach wherein the reticle, i.e. mask, is clamped by vacuum suction attraction.)

Regarding claims 8 and 20, Suwa discloses "a fine positioning actuator adapted to make fine adjustments of the position of the mask table in at least said first direction." (column 8, lines 37-48)

Regarding claims 9 and 21, Suwa discloses "a long stroke drive unit configured to scan said mask table during an exposure in a second direction that is substantially perpendicular to said first direction." (column 8, lines 37-48)

Regarding claims 23-26, Suwa discloses "wherein the apparatus is configured to at least partly fill a space between said projection system (Fig. 9, ref.# PL) and the substrate (Fig. 9, ref.# W) with a liquid (Fig. 9, ref.# LW)."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney E. Fuller whose telephone number is 571-272-2118. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on 571-272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

September 27, 2007

Rodney E Fuller
Primary Examiner
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